WHAT IS CLAIMED IS:

Sub A1

1. An ink jet printing apparatus including an ink supply device containing ink of a certain color, comprising:

a printhead structure; and

a plurality of ink drop generators fluidically coupled to the ink supply device and formed in the printhead structure and arranged along at least three axes that are substantially parallel and spaced apart from each other.

Sub B1

2. The ink jet printing apparatus of claim 1, wherein the plurality of ink drop generators is arranged along four axes that are substantially parallel and spaced transverse to each other.

6 3. The ink jet printing apparatus of claim 1, wherein the plurality of ink drop generators arranged along the at least three axes are staggered with respect to each of the axes to decrease an effective printhead pitch.

7 4. The ink jet printing apparatus of claim 3, wherein the effective printhead pitch is decreased to less than half that of a plurality of ink drop generators arranged along a single axis.

3 5. The ink jet printing apparatus of claim 2, wherein the plurality of ink drop generators arranged along the four axes are staggered with respect to each of the axes to decrease an effective printhead pitch to approximately one-fourth that of a plurality of ink drop generators arranged along a single axis.

8 6. The ink jet printing apparatus of claim 1, wherein at least some of the plurality of ink drop generators are arranged along two of the at least three axes in a staggered manner so as to approximately double a print resolution with respect to a plurality of ink drop generators arranged along a single axis.

10 7. The ink supply device of claim 1, further comprising a fluid reservoir containing ink that is fluidically coupled to the plurality of ink drop generators.

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8. The ink jet printing apparatus of claim 3, further comprising a first ink feed slot disposed between a first axis group and a second axis group and a second ink feed slot disposed between a third axis group and a fourth axis group.

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9. The ink jet printing apparatus of claim 3, wherein an arrangement of ink drop generators along each of the four axes is an axis group having an axis pitch of approximately 1/300 of an inch and whereby a combination of four staggered adjacent axis groups have an effective pitch of approximately 1/1200 of an inch.

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10. The ink jet printing apparatus of claim 8, wherein an arrangement of ink drop generators along each of the three axes is an axis group having an axis pitch of approximately 1/300 of an inch and whereby a combination of two staggered adjacent axis groups have an effective pitch of approximately 1/600 of an inch.

11. The ink jet printing apparatus of claim 1 wherein the ink jet printing apparatus is a disposable print cartridge.

12. The ink jet printing apparatus of claim 1, further comprising:

a carriage assembly for imparting relative motion between the printhead structure and a print media;

an ink supply device fluidically coupled to the plurality of ink drop generators; and

a controller for controlling operation of the carriage assembly .

Sub A2

13. A high-performance, monochrome ink jet printhead, comprising:

a printhead structure;

a high-density array of ink drop generators disposed on the printhead structure, the array comprising:

a first plurality of ink drop generators arranged along a first axis to from a first axis group;

a second plurality of ink drop generators arranged along a second axis to form a second axis group and staggered with respect to the first axis group;

a third plurality of ink drop generators arranged along a third axis to form a third axis group and staggered with respect to the first and second axis groups;

wherein the first, second and third axes are generally parallel to a reference axis and spaced transversely apart from one another.

10 ~~14.~~ The ink jet printhead of claim 13, further comprising a fourth plurality of ink drop generators arranged along a fourth axis to form a fourth axis group and staggered with respect to the first, second and third axis groups and wherein the fourth axis is generally parallel to the reference axis and spaced transversely apart from the other axes.

~~15.~~ The ink jet printhead of claim ~~14~~, further comprising an ink supply device coupled to the ink drop generators.

~~16.~~ The ink jet printhead of claim ~~14~~, wherein the reference axis is a media advance axis.

~~17.~~ The ink jet printhead of claim ~~16~~, wherein each of the first, second, third and fourth axis groups has a single axis pitch relative to the reference axis and the effective pitch of the four axis groups in combination is approximately one-fourth of the single axis pitch.

~~18.~~ The ink jet printhead of claim ~~13~~, wherein the first and third axis groups each have an axis pitch measured along the reference axis and the effective pitch of a combination of the first and third axis groups is approximately one-half of the axis pitch.

~~19.~~ The inkjet printhead of claim ~~18~~, further comprising a first ink feed slot having first and second opposing longitudinal edges and a second ink feed slot having third and fourth opposing longitudinal edges, and wherein the first

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and second axis groups are arranged adjacent to the first and second opposing longitudinal edges, respectively, of the first ink feed slot and wherein the third axis group is arranged adjacent to the third longitudinal edge.

20. The inkjet printhead of claim 16, further comprising a fourth plurality of ink drop generators arranged along a fourth axis to form a fourth axis group, whereby the fourth axis group is arranged adjacent to the fourth longitudinal edge..

21. The inkjet printhead of claim 20, wherein the first, second, third, and fourth axis groups are staggered with respect to each other such that the effective pitch of the printhead is approximately one-fourth the axis pitch.